

3 PHASE INTERLOCK SYSTEM

SLOW START UNIT



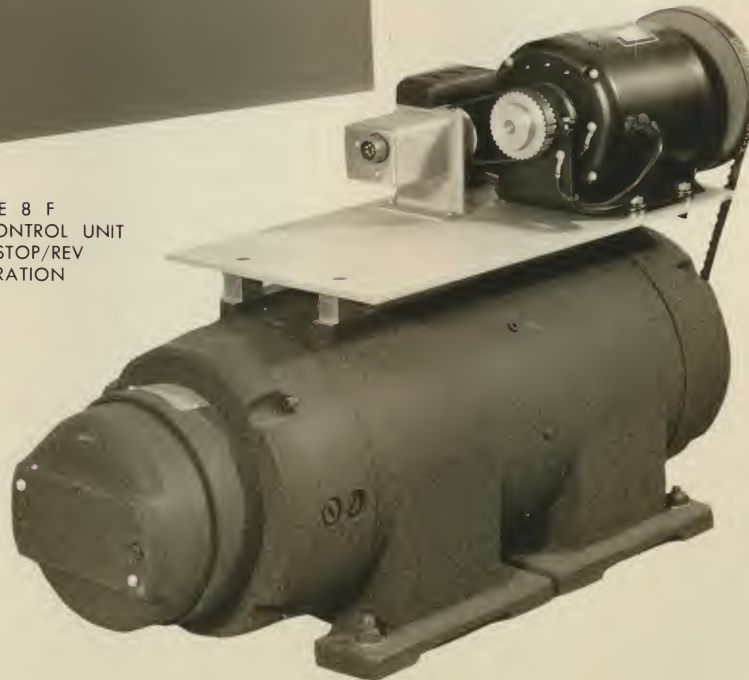
TYPE 8 F
MASTER CONTROL UNIT
FWD/STOP/REV
OPERATION

TYPE 8 F
REMOTE CONTROL
UNIT



GENERATOR FOR
FOOTAGE COUNTER
TYPE 9C
TIMING BELTED
TO DISTRIBUTOR

SUB-DISTRIBUTOR
REQUIRED FOR
16/35 MM
COMBINATION
DUBBERS



MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.

TYPE PJ 35

35 MM PROJECTOR
FWD/STOP/REV OPERATION
FROM
LOCAL AND/OR REMOTE CONTROL

DUAL
INCANDESCENT
LAMPHOUSE

$\frac{1}{4}$ HP 3 PHASE
SYNC-INTERLOCK MOTOR

WALL
MOUNTED
CONTROL BOX

LOOPING ROLLERS
& POWER REWIND

ELECTRO MAGNETIC DOWSER
AND BRACKET FOR XENON OR
ARC LAMPHOUSE
AVAILABLE IN LIEU OF
INCANDESCENT LAMPHOUSE

MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36. N. Y.

35 MM Projector
REWIND/STOP/REV Operation
from
Local and/or Remote Control

Electro Magnetic Dowser
and Bracket for Xenon or
Arc Lamphouse

$\frac{1}{4}$ HP 3 Phase
Sync-Interlock Motor

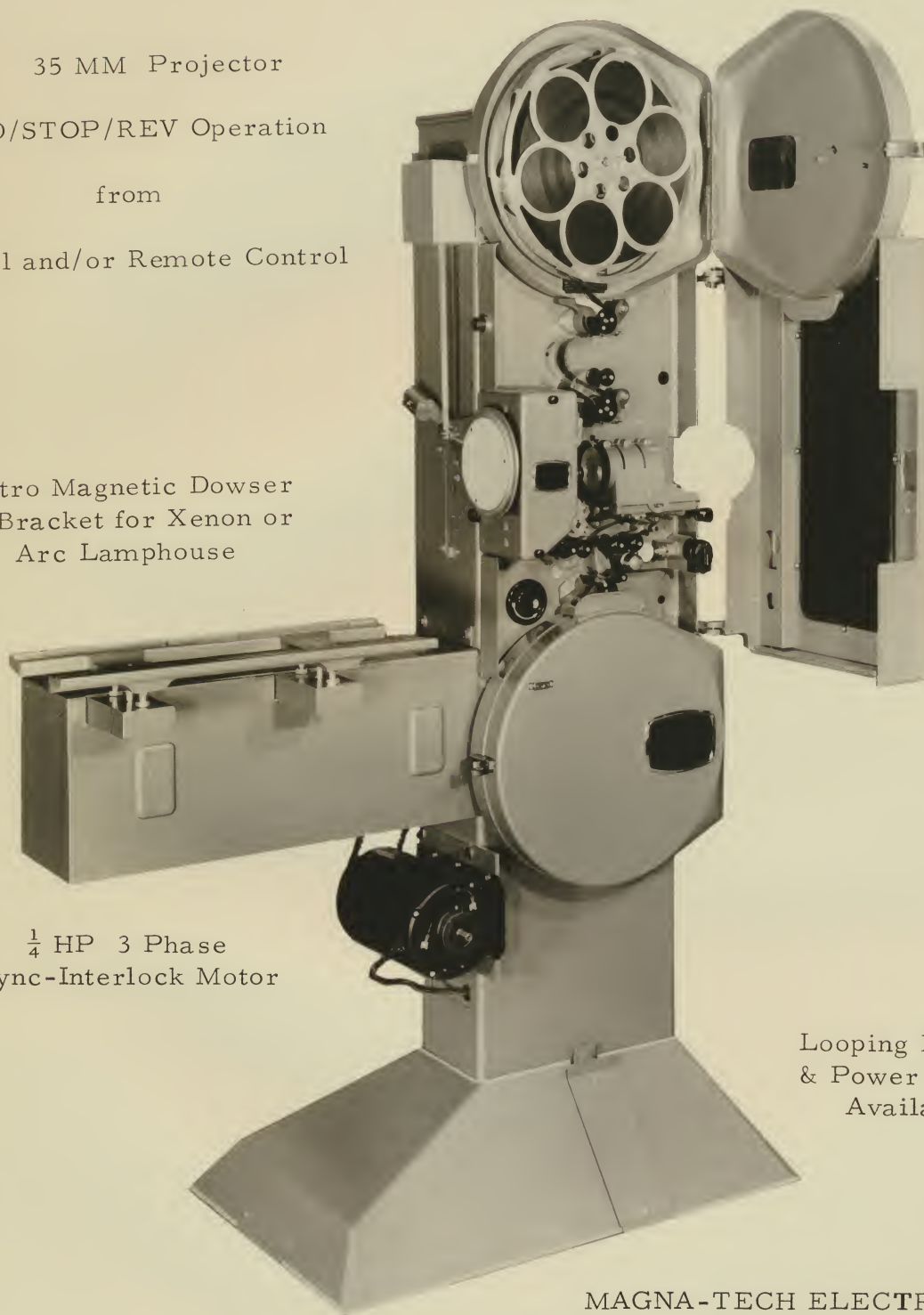
Wall
Mounted
Control Box

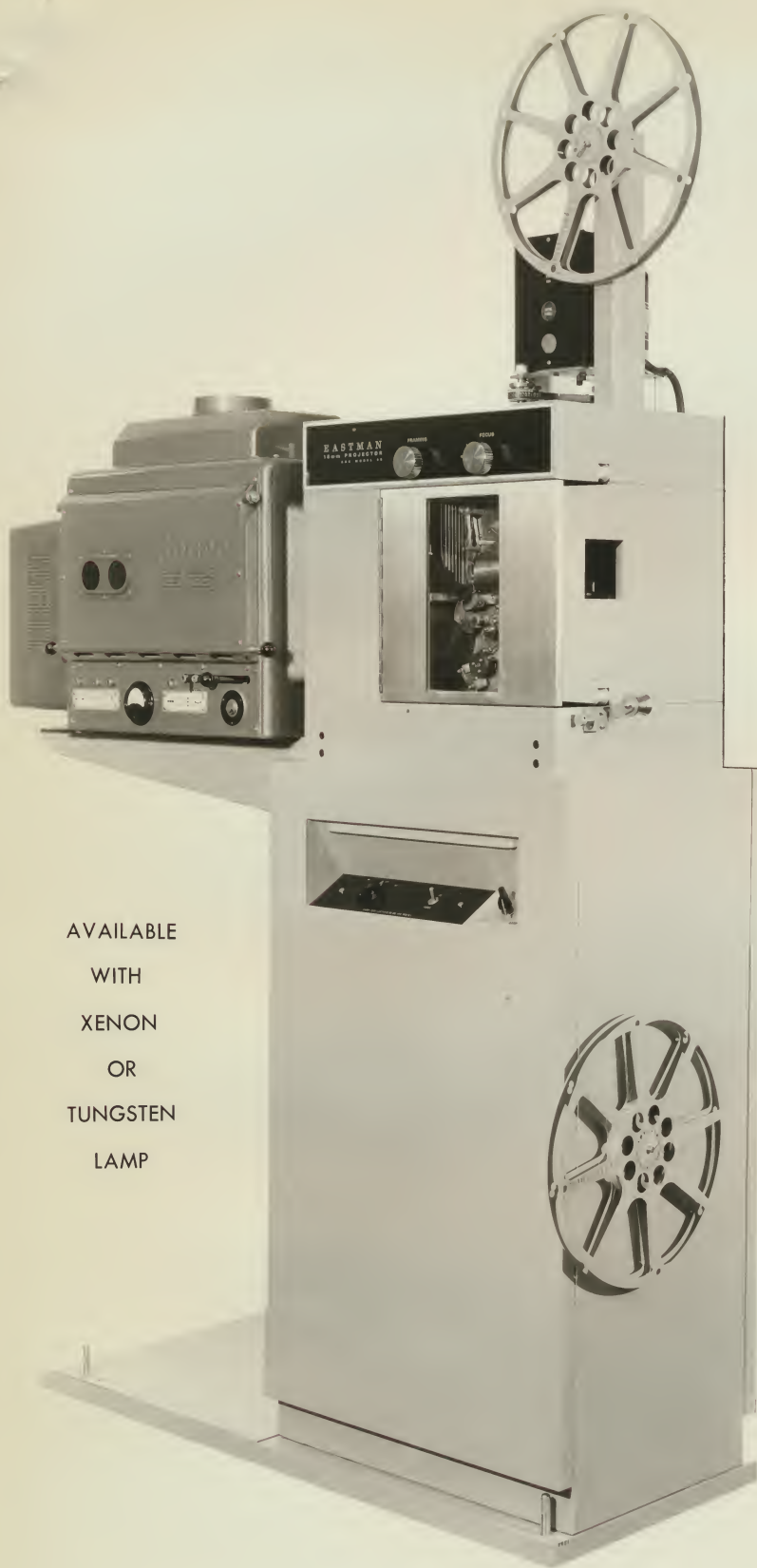
Looping Rollers
& Power Rewind
Available

MAGNA-TECH ELECTRONIC CO., INC.

Dual Incandescent Lamphouse
available in lieu of Bracket
and Dowser

630 Ninth Avenue
New York 36, N.Y.





AVAILABLE
WITH
XENON
OR
TUNGSTEN
LAMP



EASTMAN
MODEL 30, 40 OR 285
16 MM PROJECTOR
WITH INTERLOCK MOTOR AND
CONTROLS IN PEDESTAL
FOR OPERATION FROM
LOCAL AND/OR REMOTE CONTROL
(SINGLE OR THREE PHASE)

MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.

PJ - 16

JAN 16 MM PROJECTOR
WITH
SYNC-INTERLOCK MOTOR
AND
CONTROLS IN PEDESTAL
FOR
FWD-STOP-REV OPERATION
FROM
LOCAL AND/OR REMOTE CONTROL
(SINGLE OR THREE PHASE)

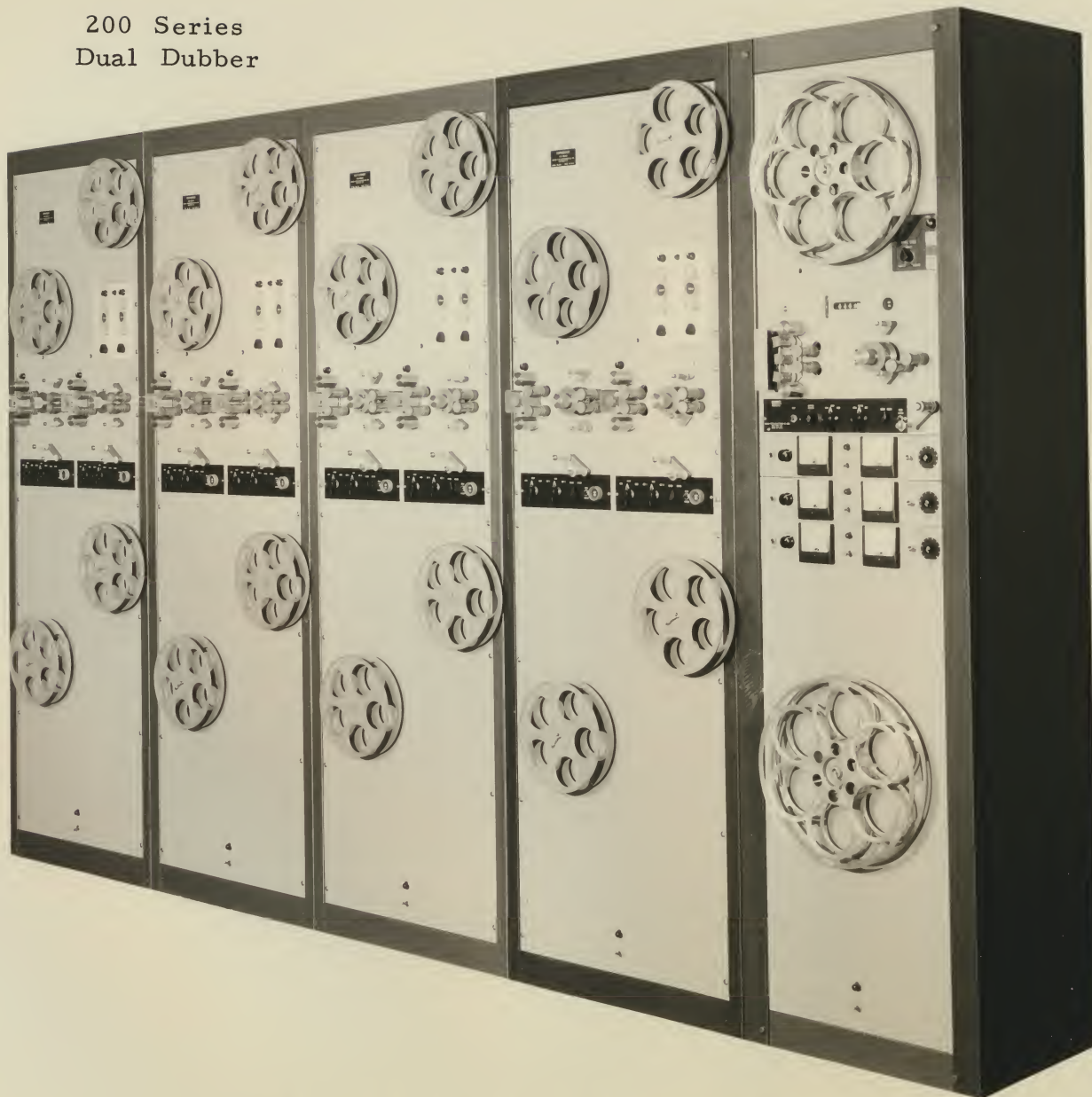


MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.

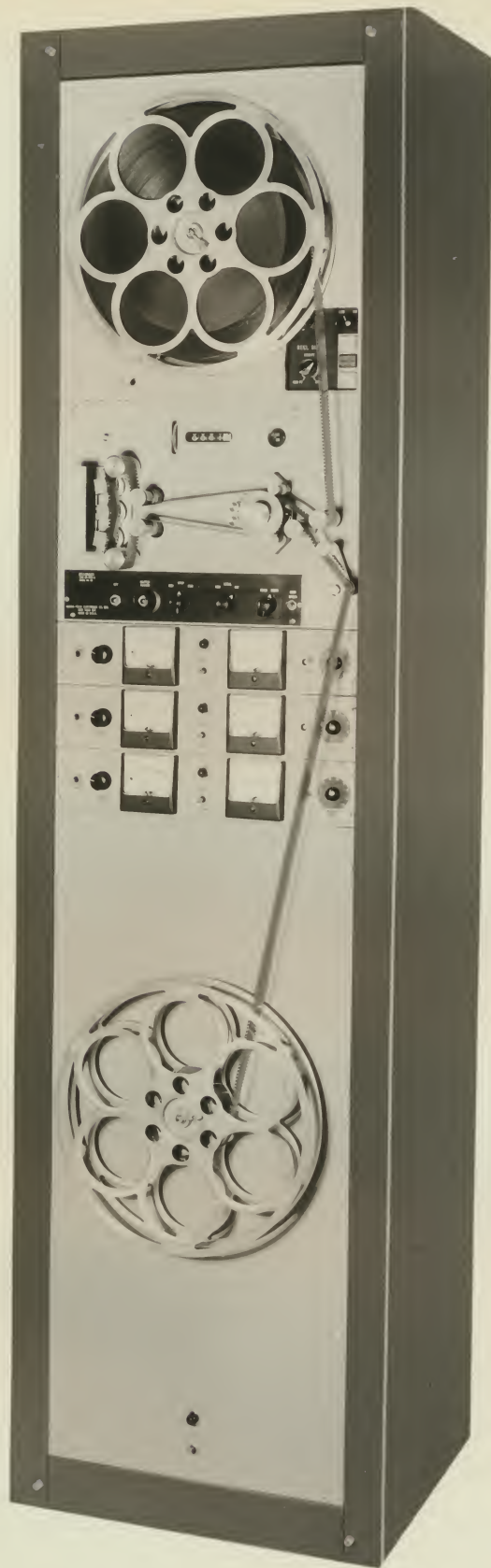
1000 Series Master
Magnetic Recorder

200 Series
Dual Dubber



MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.



1000 Series

M a s t e r

M a g n e t i c

R e c o r d e r

Pick-Up Recording

Selective Erase

Plug-in Head Assemblies

Interchangeable for 16, 35
and Multi Track

5000' Reel Capacity

MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.



Transfer

60 cycle Sync
14 KC Sync

Record

Pilot Sync
14 KC Sync

50 cycle Sync
requires Type 86
Generator and
Amplifier

MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.

TYPE 9C COUNTER

Forward-Reverse Interlock
Counter, transistorized



Generator



Projection Readout
3 or 4 digit



Optional 35MM
Frame Readout



MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.

MAGNA-TECH ELECTRONIC COMPANY, INC.
630 - NINTH AVENUE, NEW YORK 36, N.Y.

P R I C E L I S T

<u>CONTENTS:</u>		<u>PAGE</u>
Series 1000	Magnetic Recorders Single and Multi-Track	1.1
Series 200	Dual Magnetic Reproducers Single and Multi-Track Record Attachments	2.1
Series 400	Magnetic Reproducers Magnetic Recorders Single and Multi-Track Optical Reproduce Attachments	3.1
Interlock	Distributor Systems	4.1
	Motors	4.2
Counters	Footage	4.3
Tape Recorders	Ampex Synchronizer and Accessories Nagra Ampex & Scully Multi-Track Recorders	5.1 5.2
35MM Projectors	Philips-Norelco	6.1
	Century	6.4
16MM Projectors	Eastman	6.5
	Bell & Howell JAN	6.6
	Siemens	6.6
	Bauer	6.7
	Philips-Norelco	6.8
Components	Replacement Heads Compressor Equalizer Noise Suppressor Altec Amplifiers & Speakers Langevin Products AKG Microphones	7.1

All prices FOB Plant - New York City Subject to change without notice.

SINGLE AND MULTI-TRACK RECORDERSPrice Includes:

- . Selective Erase and Pick-Up Feature
- . Transistorized Erase, Record, and Play Amplifiers
- . Pre-Aligned Erase-Record-Play plug-in head assembly
- . Three (3) Speed Synchronous Motor
- . Footage Counter
- . Cabinet and Power Supply

Not Included:

Interlock Motors (order separately, as required).

<u>TYPE</u>		<u>PRICE</u>
MR-1035	35mm Single Track Recorder	\$ 5,300.00
MR-1035-3	35mm 3-Track Recorder	\$ 7,900.00
MR-1035-4	35mm 4-Track Recorder	\$ 9,300.00
MR-1035-6	35mm 6-Track Recorder	XXXXXXXXXX \$14,000.00
MR-1036	16/35mm Combination Recorder, additional \$700.00 added to price of any single or multi-track recorder above. Includes separate 16mm head assembly.	

Additional Plug-in Head Assemblies, as required

(Consisting of Erase, Record & Play Head and Mount)

1 - Track	\$ 385.00
3 - Track	\$ 775.00
4 - Track	\$ 1,065.00
6 - Track	\$ 1,600.00

Interlock Motors

Price includes installation, wiring and switching.

3 Phase Interlock Motor, 208/230 Volts	\$ 270.00
1 Phase Interlock Motor, 115 Volts	\$ 200.00
3 Phase Composite Sync/Interlock Motor, 208/230 V	\$ 426.00
(This motor supplied in lieu of 3-speed motor)	

SINGLE AND MULTI-TRACK DUAL MAGNETIC REPRODUCERSPrice Includes:

- . Two Independent Film Transports in One Cabinet
- . Transistorized Playback Amplifiers
- . Pre-Aligned Plug-in Playback Heads
- . Single-Phase Synchronous Motors
- . Cabinet and Power Supply

Not Included: (order separately)

Interlock Motors
Footage Counters

<u>TYPE</u>	<u>F.P.M.</u>	<u>PRICE</u>
MD-235, 35mm Dual Reproducer	90 - 90	\$ 4,900.00
MD-216, 16mm Dual Reproducer	36 - 36	\$ 5,100.00
MD-236, Combination 16/35mm Dual Reproducers (with High-Speed & Interlock Phasing Feature)	36/90 - 36/90	\$ 6,200.00

17 $\frac{1}{2}$ mm, 17 $\frac{1}{2}$ /35mm Dual Reproducers - available on Special Order.

Interlock Motors (Two (2) required per cabinet)

Installed, including wiring and switching

3 Phase Interlock Motor 208/230 Volts	\$ 270.00
1 Phase Interlock Motor, 115 Volts	\$ 200.00
3 Phase Composite Sync/Interlock Motor, in lieu of existing motor, 208/230 Volts	\$ 426.00

Three Phase Interlock Phasing Feature (for MD-235, MD-216) \$ 140.00

High Speed & Interlock Phasing Feature (for MD-235, MD-216) \$ 360.00
(Not available for Composite Motor)

Counters (3-Digit)

Two (2), one 16mm and one 35mm	\$ 260.00
Two (2), 16mm	\$ 260.00
Two (2), 35mm	\$ 260.00
Four (4), two 16mm and two 35mm	\$ 450.00

Multi-Track Playback Assembly

Consisting of one (1) pre-aligned multi-track plug-in playback head and additional amplifiers.

3 - Track 35mm	\$ 770.00
4 - Track 35mm	\$ 1,120.00
6 - Track 35mm	\$ 1,795.00

Recording Assembly

(Space for only one per Dual Dubber)

Includes Recording Amplifier, larger power supply, and magnetic recording head, mounted.

For MD-235 or MD-216 with one (1) recording head \$ 690.00

For MD-236 with two (2) recording heads and dual selective equalization \$ 830.00

35mm Advance Cue Head ~~with 10 watt amplifier~~, 3 second lead time \$ 350.00

MAGNETIC RECORDERS AND REPRODUCERSPrice Includes:

Transistorized Amplifier(s)
 Plug-in Head
 Synchronous Motor

Not Included: (order separately)

Cabinet & Power Supply
 Interlock Motors
 Footage Counters

<u>Reproducers</u>		<u>F.P.M.</u>	<u>PRICE</u>
MD-435	35mm	90	\$ 2,500.00
MD-416	16mm	36	\$ 2,500.00
MD-436	Combination 16/35mm	36/90	\$ 2,825.00
MD-435-3	3-Track, 35mm	90	\$ 3,270.00
MD-435-4	4-Track, 35mm	90	\$ 3,620.00

17½mm, 17½/35mm, available on Special Order.

Recorders

MR-435	35mm	90	\$ 3,135.00
MR-416	16mm	36	\$ 3,135.00
MR-436	Combination 16/35mm	36/90	\$ 3,495.00
MR-435-3	3-Track, 35mm	90	\$ 4,950.00
MR-435-4	4-Track, 35mm	90	\$ 5,840.00

17½mm, 17½/35mm, available on Special Order.

16mm Feature on 35mm Multi-Track Recorders and Reproducers
 is available. Prices on Request.

400 SERIES

Interlock Motors (with switching, installed & wired)

3 Phase Interlock Motor 208/230 Volts	\$	270.00
1 Phase Interlock Motor 115 Volts	\$	200.00
3 Phase Composite Sync/Interlock Motor 208/230 Volts	\$	426.00
(This motor supplied in lieu of existing sync motor)		

Counter

4 Digits and Frame Wheel Counter on 3½" panel, for 35mm	\$	220.00
3 Digit Counter on a 1-3/4" panel (1-16mm & 1-35mm)	\$	260.00

Cabinets

Type C-400, 77" vertical mounting space, 83" total height	\$	175.00
---	----	--------

28 Volt Regulated Power Supplies

0.25 amps	\$	112.00
0.65 amps	\$	167.00
2.2 amps	\$	250.00

One Power Supply required per cabinet.

Current Consumption:

Reproducer	0.04 amps (per track)
Recorder	0.18 amps (per track)

Optical Reproduce Attachments

With amplifier and exciter lamp supply. Operates with any 400 Series transport designed for the film size and speed required. No modification in the transport is necessary.

OD 435	35mm	Optical Reproduce Attachment	\$ 1,040.00
OD 416	16mm	Optical Reproduce Attachment	\$ 1,200.00

THREE PHASE INTERLOCK SYSTEM

Master Distributor

208/230 Volt, 3 Phase, 1 Speed - 3 H.P. with solenoid
brake, 50 or 60 cycles (1000/1200 rpm) \$ 1,290.00

Sub-Distributor

Installed on above Master Unit

1/4 H.P. \$ 332.00

1/2 H.P. \$ 430.00

(Two-Speed sprocketed machines operate from a Master
Distributor equipped with Sub-Distributor).

8F Distributor Control Unit

Forward/Stop/Reverse operation, including one (1)
remote control unit \$ 950.00

Extra Remote Control Units (for wall mounting). \$ 220.00

Slow Start Unit

For Master Distributor \$ 150.00
(Required for interlocking of some types of 35mm projectors)

Interlock System

Consisting of Master Distributor, 8F Distributor Control
Unit with one (1) Remote Control, and Slow Start Unit ~~2,390.00~~ \$ 2,390.00

Same as above, but for two-speed operation --

- with 1/4 H.P. Sub-Distributor ~~2,722.00~~ \$ 2,722.00

- with 1/2 H.P. Sub-Distributor ~~2,820.00~~ \$ 2,820.00

~~July, 1966~~
July, 1966

MAGNA-TECH ELECTRONIC CO., INC.

Page 4.1

MOTORS (Unmounted)

3 Phase Interlock Motors - 208/230 Volts

1/20 H.P.	\$	213.00
1/4 H.P.	\$	236.00

3 Phase Composite Sync/Interlock Motors - 208/230 Volts

1/10 H.P.	\$	378.50
1/4 H.P.	\$	465.00

Single Phase Interlock Motors

12-oz. inch - 115 Volts	\$	110.00
50-oz. inch - 115 Volts	\$	164.00

Synchronous Motors

3 speed Single Phase 115 V, hysteresis, 900/1800/3600 rpm	\$	125.00
1/20 H.P. Single Phase 115 V, hysteresis, 1800 rpm	\$	52.00
1/4 H.P. 3 Phase, 208/230 V, reluctance, 1200 rpm	\$	246.00

Torque Motors

16-oz. inch - 115 V.A.C. Single Phase	\$	95.00
40-oz. inch - 115 V.A.C. Single Phase	\$	115.00

Same as above, but with Condenser and D.C. Electro-magnetic Brake, all assembled and wired; for take-up use.

16-oz. inch	\$	170.00
40-oz. inch	\$	200.00

FOOTAGE COUNTER

Type 9C Forward-Reverse Interlock Counter

Rack Mounting, Transistorized, including automatic
Reverse/Stop, and Blanking Feature

(Counts to 999 feet)	3 - Digit	\$ 1,950.00
(Counts to 3999 feet)	4 - Digit	\$ 2,310.00

Generator

(For mounting on Distributor or Projector)

35mm speed	\$ 160.00
16mm speed	\$ 160.00

Projection Readout

3-3/8" high Numerals, unmounted

3 - Digit	\$ 150.00
4 - Digit	\$ 200.00

Projection Readout

1" high Numerals (Slave), unmounted

3 - Digit	\$ 90.00
4 - Digit	\$ 120.00

Provision for Frame Readout (optional feature)	\$ 475.00
--	-----------

TAPE RECORDERS AND ACCESSORIES

Sync Tape Console Components

AG-350 transistorized Ampex recorder	\$ 1,750.00
Pilot Record & Playback Assembly	\$ 310.00
Type 92B Playback Synchronizer	\$ 1,880.00
Console Cabinet on casters, for Ampex & Synchronizer	\$ 250.00

Sync Tape Console

Assembled, complete with above components	\$ 3,950.00
Same as above, less Pilot Record Feature	\$ 3,810.00

Optional Items:

Type 86, 50 cycles Sync Signal Generator:	
With 80 watt Amplifier	\$ 455.00
Less 80 watt Amplifier	\$ 290.00
External Sync Record Feature	\$ 50.00

Accessories for Ampex Recorders

Pilot Playback Kit for Ampex 351, 300, 350, AG-350	\$ 160.00
Console Cabinet on casters for 351, 350, AG-350	\$ 200.00

Portable Recorder

NTDS Nagra Recorder including:

Pilottone System	
HTF Carrying Case	
ATN Power Supply	
EB Earphones	\$ 1,539.00

Accessories:

BS II Mike Preamplifier	\$ 62.00
SQ Sync Track Generator	\$ 181.00
D-24-E AKG Microphone	\$ 160.00
W-24 Windscreen	\$ 31.00
SLO Synchronizer	\$ 450.00
205 Synchronizer	\$ 360.00

PHILIPS - NORELCO 35MM PROJECTORS

Model FP-20

Complete with optical sound head, 2000ft. magazines
2-25/32" lens holder, 115V 60 cycles, single phase
non-synchronous motor, less light source, less lens,
less amplifier \$ 2,820.00

Amplifiers

Cinema Amplifier for optical only including exciter
Supply, Type K-2 [REDACTED] \$ 320.00

Lenses

Prices according to size \$200.-\$300.-
Holder for 4" barrel diameter lens \$ 75.00
Anamorphic Adapter \$ 300.00

Lamphouses:

(Including lamp, power supply, & mounting bracket)

Incandescent with (2) 1000 watt lamps, changeover turret
lamp relays, for 10ft. wide screen* \$ 750.00
900 Watt Xetron Model CX900 for 16ft. wide screen* \$ 1,960.00
900 Watt Xetron 400 or Strong X-16 for 20ft. wide screen* \$ 2,470.00
1600 Watt Xetron 400 or Strong X-16 for 30ft. wide screen* \$ 2,725.00
2500 Watt Xetron 400 or Strong X-16 for 36ft. wide screen* \$ 3,230.00

* approximate, based on 12 to 14ft. Lamberts, highly
dependent on screen reflectance and lens speed.

Ozone Filter for 900 or 1600 watt Strong or Xetron lamps
(used in lieu of exhaust). \$ 150.00
(Exhaust required for 2500 watt Xenon).

PHILIPS-NORELCO 35MM PROJECTOR ACCESSORIES

Type FP-40AL Bracket

Required for mounting Arc Lamphouse \$ 150.00

Telecine Feature

Type G, rapid pulldown, 24 frames per second film speed at 120 exposures per second, eliminates shutter bar in TV application, (must be ordered with Projector). \$ 1,500.00

Optical Multiplexer

Type MX-1, for simultaneous projection & TV \$ 855.00

Remote Focus Attachment

\$ 70.00

Remote Framing Attachment

\$ 210.00

6000ft. Magazines

In lieu of 2000ft. magazines, for non-reversing model only \$ 120.00

Cinemascope

4-Track magnetic sound head, less electronics \$ 395.00

Water-cooled Film Gate for FP-20

\$ 60.00

MODIFICATIONS FOR 35MM FP-20 PROJECTORS

Special Motor Drives (installed and timing belted)

3 Phase Sync Motor	\$ 450.00
3 Phase Interlock Motor only	\$ 450.00
3 Phase Sync/Interlock (Composite) Motor	\$ 600.00

Reversing Feature

Consisting of upper and lower take-up torque motors, a gate release mechanism, upper and lower magazine exit rollers, and power rewind feature, for 2000' magazine only (when running in reverse, optical sound head cannot be threaded or used).

\$ 1,400.00

Same, with optical sound head drive, in reverse

\$ 1,650.00

Dowser

Electro-magnetic for Xenon or Arc lamphouse required for unattended FWD-STOP-REV remote operation to shut off light, when projector is stopped

\$ 350.00

Control Box (for wall mounting, sync/interlock operation

Forward/Reverse), consisting of:

- a) FWD-OFF-REV switch for sync motor
- b) Soft Start for sync motor
- c) SYNC-INT Selector switch
- d) Interlock motor phasing circuit
- e) Torque motor and brake ON/OFF switch and indicator
- f) Reel size torque selector
- g) Reverse mechanism control circuits
- h) Rewind switch
- i) Interlock BUS Pilot Lights

\$ 500.00

Control Box (for wall mounting, sync/interlock operation,

Forward only), consisting of:

- a) FWD-OFF Switch for sync motor
- b) Soft Start for sync motor
- c) SYNC-INT Selector switch
- d) Interlock motor phasing circuit
- e) Interlock BUS Pilot Lights

\$ 350.00

CENTURY PROJECTORS

Model MSA

35mm projector mechanism complete with 2000' magazines
and "C" pedestal \$ 1,962.00

Model MTR-3

Optical Sound Reproducer with direct drive, non sync motor,
photo transistor assembly and volume control \$ 825.00

Optical Preamplifier

And exciter lamp D.C. supply, 600 ohm output, on rack
mounting chassis \$ 375.00

Light Sources

Xenon lamp including lamphouse and power supply:
900 watt Xetron Model CX900 for 16ft. wide screen* \$ 1,960.00
900 watt Xetron 400 or Strong X-16 for 20ft. wide screen* \$ 2,330.00
1600 watt Xetron 400 or Strong X-16 for 30ft. wide screen* \$ 2,585.00
2500 watt Xetron 400 or Strong X-16 for 36ft. wide screen* \$ 3,090.00

* approximate, based on 12 to 14ft. Lamberts, highly
dependent on screen reflectance and lens speed.

Ozone Filter for 900 or 1600 watt Strong or Xetron lamps (used
in lieu of exhaust). (Exhaust required for 2500 watt Xenon). \$ 150.00

Lenses - Priced according to size \$200.-\$300.-

Anamorphic Adapter \$ 300.00

Special Motor Drives (in lieu of non-sync motor)
installed and timing belted:

3 Phase Sync Motor	\$ 450.00
3 Phase Interlock Motor only	\$ 450.00
3 Phase Sync/Interlock (Composite) Motor	\$ 600.00

Control Box (wall-mounted - For Sync-Interlock operation)

Consisting of:

a) FWD-OFF switch for sync motor	
b) Soft Start for sync motor	
c) SYNC-INT Selector switch	
d) Interlock motor phasing circuit	
e) Interlock BUS Pilot Lights	\$ 350.00

16MM EASTMAN PROJECTORS

Model 285

Telecine Projector with projection lens and preamplifier \$ 8,220.00

Model 30

Tungsten Projector, 1000 watt, with preamplifier,
less lens \$ 8,725.00

Model 40

Projector equipped for Xenon Illumination with pre-
amplifiers, less lens, less lamp \$ 8,750.00

Lenses

For Models 30 & 40 \$ 72.- \$400.-
For Model 285 (3" and 3½") \$ 120.00

Magnetic Playback Kit, installed \$ 690.00

Light Sources:

Xenon lamp including lamphouse, mounting and power supply:

For Model 30

900 watt Xetron Model CX900 for 15ft. wide screen \$ 1,960.00

For Model 40

900 watt Xetron 400 or Strong X-16 for 20ft. wide screen \$ 2,330.00

1600 watt Xetron 400 or Strong X-16 for 25ft. wide screen \$ 2,585.00

Ozone Filter for 900 or 1600 watt Strong or Xetron lamps \$ 150.00
(used in lieu of exhaust).

Interlock Modification for Models 25, 30, 40, 275, 285

1/8 HP 3-Phase Interlock Motor mounted and timing
belted through floating coupling to projector motor,
including switching modifications \$ 1,050.00

16MM PROJECTORS

JAN Projectors & Accessories

Basic unit, optical sound only, with 1000 watt incandescent lamp, 2" lens, 115 volt non-synchronous motor, built-in speaker and amplifier.	\$ 1,295.00
Same as above, with optical and magnetic sound	\$ 1,590.00
Synchronous Motor, 115 volt 60 cycles (factory-installed)	\$ 300.00
Pedestal, only	\$ 145.00

Modifications for Customer Furnished Projector

Pedestal and PJ-16 controls installed. Consisting of:	
a) Fwd-Off-Reverse switch for sync motor	
b) Sync-Int. Selector switch	
c) Interlock Phasing Circuit and Int. ON indicator	\$ 700.00

Single-Phase Sync and Interlock motor installed with pedestal and PJ-16 controls	\$ 1,000.00
--	-------------

Composite 3-Phase Sync-Interlock motor installed with pedestal and PJ-16 controls	\$ 1,230.00
---	-------------

Modified JAN Projectors

Optical sound only, composite <u>3-phase</u> sync-interlock motor installed with pedestal, and PJ-16 controls	\$ 2,300.00
---	-------------

Optical sound only, <u>single-phase</u> sync & interlock motor installed, with pedestal and PJ-16 controls	\$ 2,070.00
--	-------------

Optical and Magnetic sound, composite <u>3-phase</u> sync-interlock motor installed, with pedestal & PJ-16 controls	\$ 2,550.00
---	-------------

Optical and Magnetic sound, <u>single-phase</u> sync & interlock motors installed, with pedestal and PJ-16 controls	\$ 2,340.00
---	-------------

Xenon Modification

450 Watt Lamp, Lamphouse, and Power Supply	\$ 1,360.00
900 Watt Lamp, Lamphouse, and Power Supply	\$ 1,600.00

16MM SIEMENS PROJECTOR

Model 2000, Double System Magnetic Record/Play	\$ 1,895.00
Sync Motor, installed	\$ 380.00

16MM BAUER SELECTON "II O" PROJECTOR

Model SL-3

Optical sound, less lamp, lens, amplifier and motor	\$ 2,025.00
Same with 115V 60 cycles non-sync motor	\$ 2,365.00
Same with 220V 60 cycles 3-phase sync motor	\$ 2,525.00

Model ST-3

Optical/Magnetic Sound, less lamp, lens, amplifier & motor	\$ 2,100.00
Same with 115V 60 cycles non-sync motor	\$ 2,440.00
Same with 220V 60 cycles 3-phase sync motor	\$ 2,600.00

Lamps

Xenon, including lamphouse, bulb and power supply:

Xetron	CX450	\$ 1,650.00
Bauer	900 Watt	\$ 2,350.00
Bauer	1600 Watt	\$ 2,700.00
Ozone Filter and Exhaust Blower		\$ 150.00

Lenses

25mm to 75mm	\$40.-\$95.-
--------------	--------------

Anamorphic Adapter:

For 35 & 50mm Lenses	\$ 185.00
For 65 & 70mm Lenses	\$ 450.00

Sound

Exciter Lamp Supply, installed in pedestal	\$ 140.00
15 Watt Amplifier for optical sound reproduction only	\$ 295.00
15 Watt Amplifier for optical & magnetic sound reproduction	\$ 520.00

COMPONENTS

Magnetic Record, Play & Erase Heads (Replacements)

Single Track, 16 or 35mm, 200 mil edge	\$ 95.00
Single Track, 16mm, 200 mil center	\$ 95.00
Single Track, 35mm, 100 mil release	\$ 95.00
2-Track, 16mm, 200 mil edge, 100 mil center	\$ 175.00
3-Track, 35mm, 200 mil	\$ 225.00
4-Track, 35mm, 150 mil	\$ 325.00
6-Track, 35mm, 100 mil	\$ 500.00
Plug-in Head Mount (200 or 400 Series)	\$ 45.00

Amplifiers (For Multi-Track Additions)

Type 69B, Magnetic Playback Amplifier	\$ 250.00
Type 68, Magnetic Recording Amplifier	\$ 550.00
Type 68, Magnetic Recording Amplifier with dual equalization (16 & 35mm)	\$ 580.00

Components

Type 29, Equalizer (Escutcheon \$12.00 additional)	\$ 298.00
Type 29R, Equalizer (rack panel mounted)	\$ 313.00
Type 31, Compressor	\$ 570.00
Type 8202, Ceiling Control for Type 31	\$ 55.00
Type 38, Variable HP - LP Filter	\$ 490.00
Type 34B, Noise Suppressor	\$ 1,280.00
Type 28, Power Supply, 275V DC 100 Ma	\$ 100.00
Type MD12-4.2, Power Supply, 12V DC 4.2 amps (for 60 cycles only)	\$ 150.00

Altec Lansing

A-7, Voice of the Theatre Loudspeaker System	\$ 294.00
844-A, Monitor/Playback Speaker System	\$ 294.00
1568A, 40 Watt Amplifier	\$ 157.00
1569A, 80 Watt Amplifier	\$ 195.00
4665, Input Transformer	\$ 30.00

AKG Microphones & Langevin Products

Supplied as required -- Prices on request

MTE Reversible Sound Recording System

- General** This system presents a new approach to Post-Syncing, Electronic Editing and Re-recording. The heart of the system is the 1000 Series Master Magnetic Recorder which has the ability to go IN and OUT of record without leaving any discernable trace of noise, or discontinuity in music or dialogue recordings.
- In Post-Syncing** the recorder can be used to add spot dialogue to a full reel, without previously cutting the reel into loops.
- In Electronic Editing** the recorder permits making music and effects tracks by automated or semi automated techniques.
- In Re-recording** the recorder permits correcting mistakes, or making changes by backing up the system a few feet, and then running forward. This will automatically erase the error and record the corrected passage. Therefore, a mix can be completed in the first run, without ever going back to the start mark.
- By the same method, changes can be made in finished mixed tracks. The multi-track version of the 1000 Series Recorder permits cutting IN and OUT on a single track, or any combination of tracks, while maintaining all the above features.

The 1000 Series Master Magnetic Recorder's basic electrical and mechanical performance is similar to that of the 200 Series units. The recorder is specifically designed for Forward/Reverse operation. It features undetectable Record and Erase ON or OFF switching changes. The mixer can cut IN or OUT during dialogue or music passages to make corrections, insertions, additions, etc., on already recorded tracks, in interlock. There is no discernable difference in a continuous reproduction of a sustained note, indicating where the cut in and out was made.

When the interlock system reverses, the record and erase circuits are automatically disabled. The Record ON or Record OFF controls are remoted to the console. In multi track models there are individual selective controls for each track as well as a simultaneous control for all tracks.

The film transport utilizes plug-in Head Assemblies which are interchangeable for 35mm, multi track and 16mm.

The full equipment compliment consists of:

- a) 1000 Series Master Recorder (pickup recorder)
- b) PJ-35 Reversible Projector
- c) Type 9C Reversible Transistorized Counter
- d) Type 8F Reversible Interlock System
- e) 200 Series Reversible Dubbers

Description

A complete recording studio installation consisting of the above items, can be completely controlled from the mixing console, after all machines are threaded. The Interlock Control Unit can be automatically started, stopped, and reversed in any sequence, by the mixer. The projector, dubbers and recorder will follow the mixer's last command and remain in sprocket hole interlock. The projector's illuminating system will be doused whenever the projector comes to a stop, and project a picture when the system rolls. The exact indication of frame and film footage between the sync start mark and the film in the gate is shown on the counter readouts. When running in reverse, the counter information will stop the interlock distributor at zero footage, which is equivalent to the start mark position. The counter can also start, stop, and reverse the distributor at any preset footage. This feature is highly desirable when recording a post-synced dialogue section in a non edited reel. The MTE system for re-recording, permits the mixer to make corrections, substitutions, insertions and additions in single or multi tracks of the master mix. Cutting in and out on recorded tracks, erasing a section of the old track, and recording new passages is possible with the 1000 Series Master Magnetic Recorder.

The Type 8F Interlock Control System employs a 3-phase 1200 rpm (at 60 cycles) master distributor powered by the 8F control unit. The distributor has a slow start characteristic, and an electromechanical brake for stopping. The controller is operated from a push button station (7 buttons) in the projection booth or machine room. The controls are Interlock ON, Interlock OFF, Ready ON, Ready OFF, Forward, Reverse and Stop. The controls for Forward, Reverse and Stop are repeated at the mixing console. The mixer's controls are inoperative, until the Ready ON has been actuated in the machine room. This illuminates the mixer's STOP button, and he can then roll the system. He now has complete control and can operate manually or automatically the Forward, Reverse and Stop buttons. It is unnecessary to operate the Stop button to change direction. Pressing the FWD or REV button will cause the distributor system to come to a stop. The memory circuit will reverse the direction only after the motion sensor circuit has indicated that the distributor's rotation has actually stopped. The Stop button is used only for stopping and remaining stopped.

The machines to be interlocked, are all equipped with an Interlock Phasing Circuit. When a machine is switched on to an interlock bus, its rotor may or may not be in the proper angular position for correct lock. The phasing circuit permits the operator to slowly rotate the threading knob. When the correct angular position is reached, a relay closes, and the interlock motor is locked fast to the distributor.

The Reversible Projector will operate FWD/REV in interlock with the other equipment. The 35mm model uses the Philips Norelco Model FP-20 projector. It is equipped with a composite sync-interlock motor, upper and lower reel spindle takeup motors, a gate release mechanism and an ON/OFF circuit for the lamp dower. The light source can be either incandescent, Xenon, or Arc. A wall mounted control box contains all the switching circuitry for controlling the projector locally, or the projector can be operated remotely by the interlock system. In interlock operation, all functions take place automatically. The lamp or dower turns on and off when the projector rolls. The gate release mechanism opens whenever the projector runs in reverse, to permit spliced work prints to be fed up through the gate. The reel spindle motors feed and take up the film in either direction. The projector is also equipped with magazine exit rollers for looping, and power rewind, reel to reel.

The 16mm model uses the Bell & Howell commercial JAN projector equipped with a composite sync interlock motor, and a control box, all mounted on a pedestal. The functions and operation of the 16mm model is essentially the same as described for the 35mm projector. The JAN projector light source can be either incandescent or Xenon.

The Type 9C Footage Counter adds or subtracts film footage in interlock with sprocketed film equipment. Projection readouts with 3 or 4 digits indicate footage for 16mm or 35mm speed. Dubbers, recorder and projector can be started, stopped and reversed any number of times and the footage reading will always be true. The counter also feeds out information to start, stop and even reverse the rotating sprocketed equipment at preset footages. The readout numbers can be remotely reset to zero. In operation, the information signal comes from a photo-cell shaft encoder, timing belted to the distributor, or one of the sprocketed machines. The complete counter system employs no moving mechanical parts except a small disc in the shaft encoder.

The transistorized electronic unit converts the signals from the rotating shaft encoder and feeds the numerical footage data to the projection readout units and the automated preset units. The frame readout consists of 16 lamps arranged in a circle. They flash on and off, one after another, in either a clockwise direction for forward, or a counter clockwise direction for reverse. The lamp that is on indicates the exact frame location within one foot of 35mm film. Actually, each foot of film is divided into 16 precise increments, which feed signals to the circular frame readout. These frame and footage signals are also used for electronic editing and cueing of other equipment.

The Reversible Projector will operate FWD/REV in interlock with the other equipment. The 35mm model uses the Philips Norelco Model FP-20 projector. It is equipped with a composite sync-interlock motor, upper and lower reel spindle takeup motors, a gate release mechanism and an ON/OFF circuit for the lamp dower. The light source can be either incandescent, Xenon, or Arc. A wall mounted control box contains all the switching circuitry for controlling the projector locally, or the projector can be operated remotely by the interlock system. In interlock operation, all functions take place automatically. The lamp or dower turns on and off when the projector rolls. The gate release mechanism opens whenever the projector runs in reverse, to permit spliced work prints to be fed up through the gate. The reel spindle motors feed and take up the film in either direction. The projector is also equipped with magazine exit rollers for looping, and power rewind, reel to reel.

The 16mm model uses the Bell & Howell commercial JAN projector equipped with a composite sync interlock motor, and a control box, all mounted on a pedestal. The functions and operation of the 16mm model is essentially the same as described for the 35mm projector. The JAN projector light source can be either incandescent or Xenon.

The Type 9C Footage Counter adds or subtracts film footage in interlock with sprocketed film equipment. Projection readouts with 3 or 4 digits indicate footage for 16mm or 35mm speed. Dubbers, recorder and projector can be started, stopped and reversed any number of times and the footage reading will always be true. The counter also feeds out information to start, stop and even reverse the rotating sprocketed equipment at preset footages. The readout numbers can be remotely reset to zero. In operation, the information signal comes from a photo-cell shaft encoder, timing belted to the distributor, or one of the sprocketed machines. The complete counter system employs no moving mechanical parts except a small disc in the shaft encoder.

The transistorized electronic unit converts the signals from the rotating shaft encoder and feeds the numerical footage data to the projection readout units and the automated preset units. The frame readout consists of 16 lamps arranged in a circle. They flash on and off, one after another, in either a clockwise direction for forward, or a counter clockwise direction for reverse. The lamp that is on indicates the exact frame location within one foot of 35mm film. Actually, each foot of film is divided into 16 precise increments, which feed signals to the circular frame readout. These frame and footage signals are also used for electronic editing and cueing of other equipment.

200 SERIES

M.T.E.

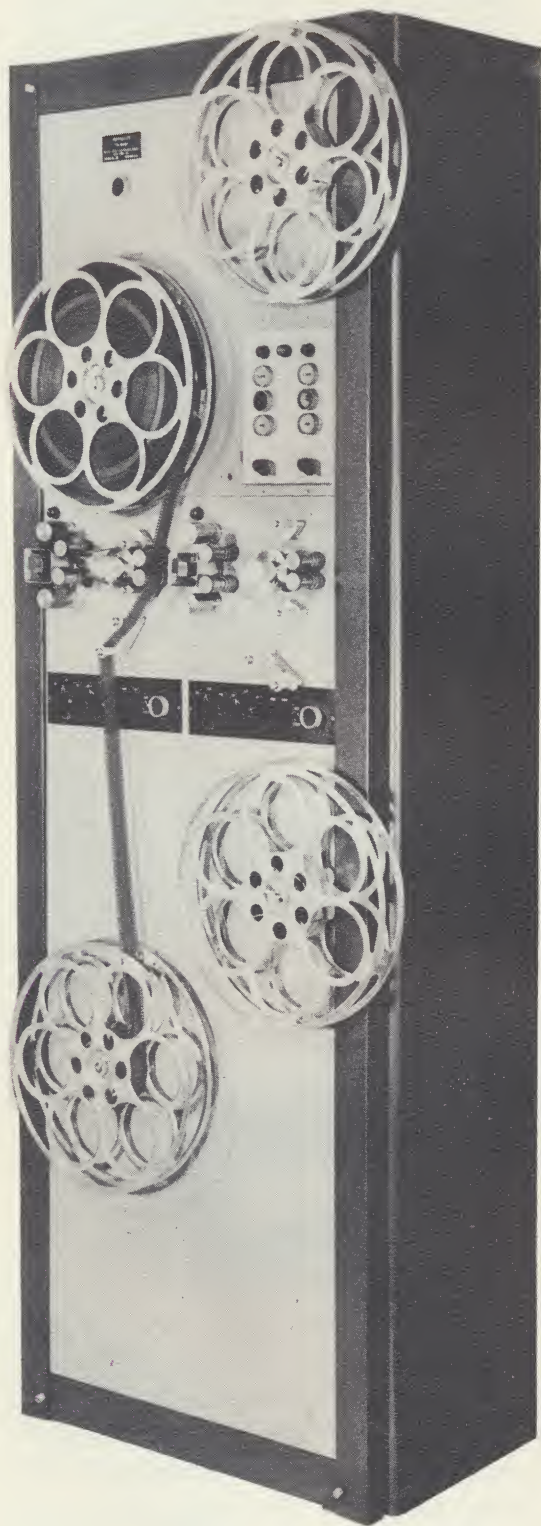
**DUAL MAGNETIC
DUBBER**

FEATURES

- *Space Economy*
- *Two Independent Transports*
- *3000 feet Reel Capacity*
- *Rapid Threading*
- *Automatic Loop Setter*
- *Reversible Sprocket Drive*
- *Automatic Torque Motor Cut-Off*
- *Electro-Magnetic Spindle Brakes*
- *Fast Wind and Rewind*
- *Solid State Electronics*
- *Plug-in Magnetic Heads*
- *Interlock Phasing Circuit*
- *Two Year Guarantee*

OPTIONS

- *Multi track playback assemblies*
- *16/35 mm Combination*
- *High Speed Through Sprocket*
- *Interlock Motors*
- *Sprocket Decoupling Knob*
- *Recording Assembly*



MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.

DESCRIPTION

GENERAL

The 200 Series Dual Dubber is designed to play back 16mm, 17½mm or 35mm (depending on the model) magnetic film for studio re-recording.

The cabinet contains two complete electrically and mechanically independent dubbers. They are built on common panels with the film feeding from top to bottom. Adjacent cabinets can be joined for multiple installation.

One of the transports can be equipped for recording. The sprocket can be driven by either the synchronous motor or it can be interlocked with other motion picture equipment. The reel spindles are directly driven by torque motors.

FILM TRANSPORT

The film transport is mounted on a cast aluminum alloy plate ⅜" thick, stress relieved and precision ground. The mechanism employs a double flywheel flutter suppressor system and a single film sprocket with a precision worm gear speed reducer.

Sound drums, rollers and shafts are precision machined from non-magnetic stainless steel. Ball bearings used are of the selected stainless steel type. A quartz precision dashpot with a self-lubricated piston provides effective dampening of film motion against disturbances caused by film splices. The unit has an automatic film loop setter which locks the filter rollers when threading, assuring the correct length of the film loop. A detented tension switch adjusts for correct filter roller position.

A sprocket inching knob is used to align the start mark. The sprocket can also be declutched (optional) from the motor drive, when in interlock. The film will run both forward and reverse through the sprockets

for sync or interlock operation. High speed drive through the sprockets is available as an option.

In the combination 16/35 mm or 17½/-35 mm dubbers the tight loop film pulling mechanism permits complete interchange from one film size and speed to the other without altering or modifying the film transport.

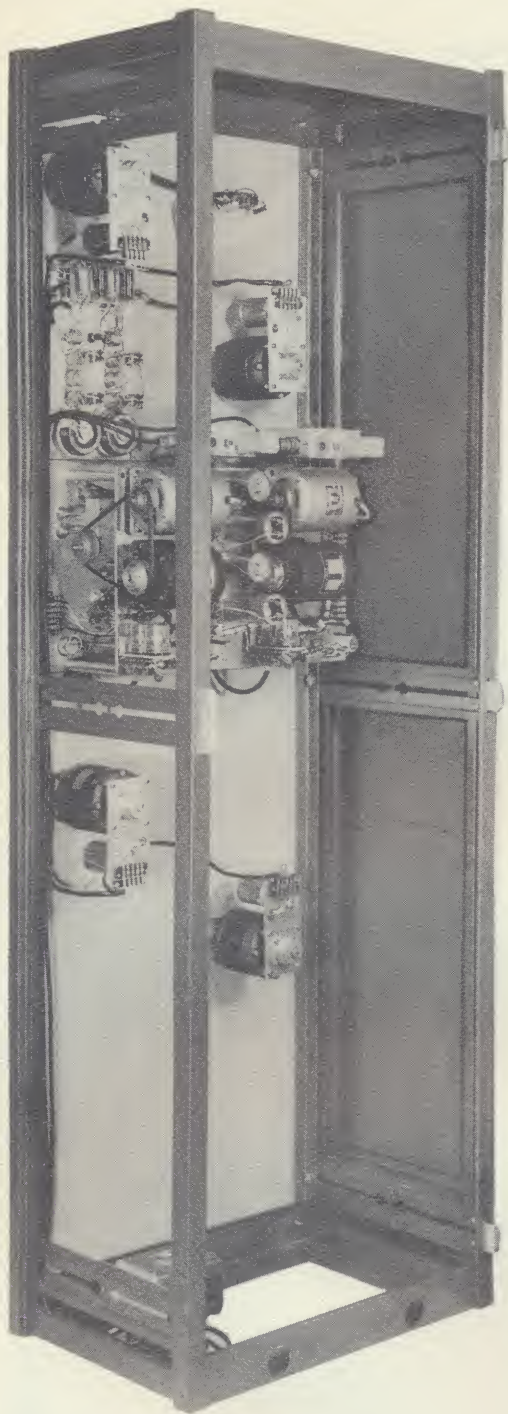
DRIVE MOTOR and CONTROLS

The drive motor system is mounted on a vertical sub-panel supported from the main film transport panel. This panel contains the synchronous motor, the interlock motor and the associated controls. These motors are coupled to the speed reducer by a timing belt and timing gear pulleys which give the correct speed ratio.

The motor selector switch connects the sync motor for local operation or the interlock motor to bus 1 or bus 2 for remote interlock operation. The Forward-Off-Reverse switch controls the sync motor. The third speed of the single phase sync motor is used to drive the film through the sprocket at high speed, either forward or reverse (optional).

In the combination dubber, a speed selector switch selects the correct speed of the multi speed sync motor, the 16 or 35mm interlock motor and the correct equalizer in the playback amplifier. The two speed interlock buss is powered from a 1200 rpm master distributor and a 600 rpm sub-distributor which is timing belted to the main distributor's rotor.

The interlock phasing circuit prevents leaving a stalled interlock motor on the buss in an incorrect rotor position. The phasing circuit relay closes only after the rotor has been correctly aligned.



TOP PANEL

Feed motors, reel spindles, torque motor controls, and amplifiers.

CENTER PANEL

Film transport, drive motors, motor controls and magnetic heads.

BOTTOM PANEL

Take up motors and reel spindles (recording amplifier optional).

FEED and TAKE-UP REELS

The take-up and rewind system consists of two torque motors directly coupled to the reel spindles. Each spindle has an electromagnetic brake to prevent the film from unspooling. When film is threaded through the sprocket and the cut off switch (film path roller) is actuated, the torque motors will respectively hold back and take up the film in both forward and reverse operation. The brakes are released whenever the torque motors are powered.

A pilot light will indicate that both torque motors are being powered. Each upper spindle's rotation can be reversed by a CW/CCW switch to accommodate "A" or "B" wound reels. A rheostat is provided to adjust the amount of torque for different size reels from 400 to 3000 ft. The film can be wound or rewound from reel to reel at high speed. This is controlled by the wind or rewind push buttons. The film path cut off switch applies the reel spindle brakes when the film runs out, and switches off the power to the take-up torque motors.

HEADS

The magnetic heads are pre-aligned and mounted on plug-in assemblies which include the connector. When changing the heads for different tracks, re-alignment is not necessary. The dubber heads are surrounded by a heavy mu-metal shield can.

ELECTRONICS

The transistorized playback amplifiers are mounted on the upper reel spindle panel. The amplifiers are powered from a regulated 28V power supply in the bottom of the cabinet. All amplifier connections are plug-in. When changing the film speed, the amplifier equalization is also automatically changed. Equalization controls are provided to initially adjust the playback frequency characteristics. All torque motor circuits are designed to produce no start/stop clicks in the audio system.

SPECIFICATIONS — 200 SERIES

FILM CAPACITY

3000 feet (using 17" reels)

FILM DRIVE CONTROLS

Sync speed selector
Sync motor switch, FWD-STOP-REV
Selector - INT 1 - Sync - INT 2
High speed push button (optional)
Flutter suppression roller tension adjustment

REEL SPINDLE DRIVE & CONTROLS

Single phase torque motors
Reel size take-up torque selector
Selector CW/CCW rotation upper spindle
Automatic film cut-off switch
Wind and rewind push buttons

REWIND TIME

400 feet ½ minute
1000 feet 1 minute
2000 feet 2 minutes

POWER

115V AC 50 or 60 cycles - 6 amps

FLUTTER

0.08% RMS at 90 fpm
0.10% RMS at 36 fpm

MAGNETIC HEADS

.200" wide standard track
17½ & 35mm #1 location
16mm edge track,
Center and multi track optional

OUTPUT

600 ohms ungrounded

RESPONSE

Standard 16, 17½ and 35mm curves

DISTORTION

0.5% THD at +16 dbm output level

SIGNAL TO NOISE RATIO

65 Db below 100% output

DIMENSIONS & WEIGHT

83" H x 18" D x 27" W
300 lbs.

STANDARD MODELS

MD-235	35mm	90 fpm	Single Speed Dual Magnetic Reproducer
MD-216	16mm	36 fpm	Single Speed Dual Magnetic Reproducer
MD-236	16/35mm	36 & 90 fpm	Two Speed Combination Dual Magnetic Reproducer
MD-237	17½/35mm	45 & 90 fpm	Two Speed Combination Dual Magnetic Reproducer

MOTOR DRIVES AVAILABLE

MD-216 or MD-235

- a) 1 phase sync, and 1 phase or 3 phase interlock
- b) 1 phase or 3 phase composite sync/interlock

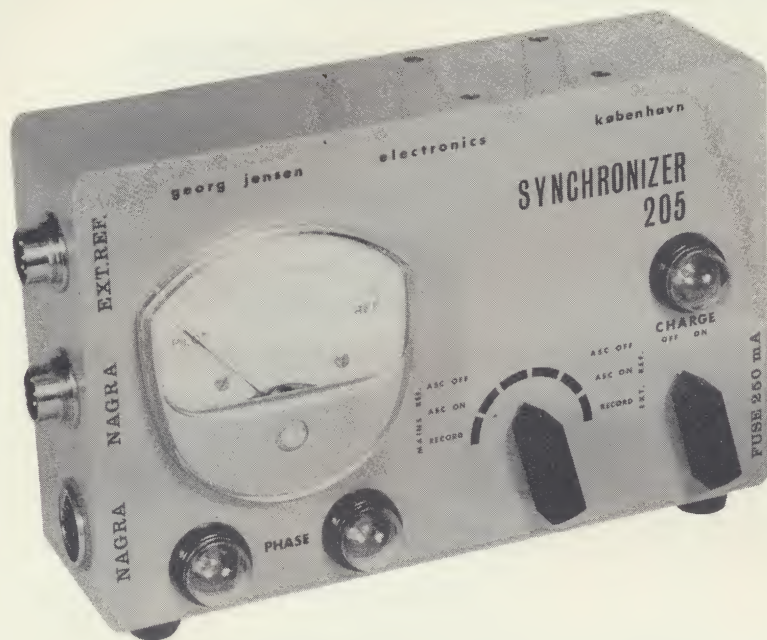
MD-216 or MD-235 — with optional high speed feature —

1 phase sync 3 speed, and 1 phase or 3 phase interlock

MD-236 or MD-237 — with standard high speed feature —

1 phase sync 3 speed, and 1 phase or 3 phase interlock

Full two year guarantee on any defective parts except those encountering normal wear.



The Type 205 Synchronizer is designed to be used in the field or in the studio with the Nagra recorder. In the studio it controls the playback speed of the Nagra by comparing the frequency of a sync signal on the tape to that of an A.C. line. This permits studio use for sync sound transfer from tape to film and post-sync shooting against a pre-recorded sync tape.

The 205 also controls the Nagra's speed by comparing the frequency of the recorded sync signal to the output frequency of a camera driven sync generator. This permits the use of battery powered cameras for post-sync shooting against a pre-recorded sync tape on locations where A. C. power cannot be used.

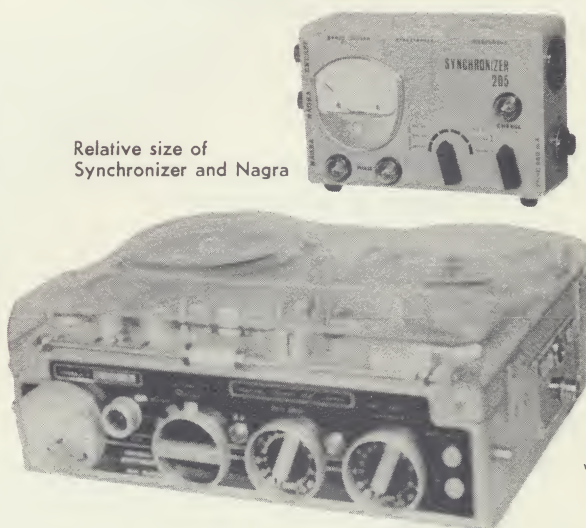
205 SYNCHRONIZER FOR 1/4" TAPE SYNC RECORD AND PLAYBACK WITH MOTION PICTURE FILM

Designed for Nagra Recorders

FEATURES

- Nagra power supply built-in
- Pilot-tone source for Nagra
- Built-in charger for Nagra batteries
- Operates from A.C. or Nagra batteries
- Checks sync condition on location
- All functions switch selected without cable re-connection
- Plus or minus 2% speed correction range
- Rapid correction rate, no overshoot
- Meter and phase lamps indicate speed correction
- Fully transistorized
- Small size and weight
7 1/2 x 4 5/8 x 2 1/4", 4 lbs.
- Heavy duty leather carrying case

Relative size of
Synchronizer and Nagra



MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York 36, N. Y.

FUNCTIONS OF 205 SYNCHRONIZER PER MODE SELECTOR

Mains Ref. A.C. Line

Nagra powered by Synchronizer

Record:

Provides Pilot-tone signal from A.C.

A.S.C. ON:

Synchronizes playback tape speed

A.S.C. OFF:

Compares sync signal to line frequency without correcting tape speed.

Ext. Ref. Camera Sync Generator

Synchronizer powered by Nagra

Record:

Provides Pilot-tone signal from camera sync generator

A.S.C. ON:

Synchronizes playback tape speed with D.C. motor driven camera

A.S.C. OFF:

Compares Sync signal to camera Sync generator frequency without correcting tape speed.

SYNC INDICATOR METER

In A. S. C. OFF position of Mode Selector, it indicates whether tape speed is within correction range.

In A. S. C. ON position, it indicates that the tape is being controlled, the amount of speed correction being made to maintain synchronism, and whether the synchronized tape speed is faster or slower as compared to the original recording.

SYNC PHASE LAMPS

Provide visual display of minute and rapid speed corrections not otherwise discernable on the Meter.

SPECIFICATIONS

Inputs

- 1) A. C. Line
- 2) External Reference Frequency
(Camera Sync Generator)
- 3) Sync head
- 4) Nagra Battery Power

Mode Selector Switch

Selects Battery or A. C. operation
Speed Correction ON or OFF
Sync Signal Record — External or Line

Charge Switch

ON - OFF with Indicator Light

Sync Indicator Meter

2-7/8", wide view

Sync Phase Lamps

Two

Line Voltage Selector

5-position Tap, 110, 125, 160,
220 and 240 volts

Outputs

D.C. Power for Nagra
Pilot-tone Signal for Record
Speed Correction Signal
Charging Current for Nagra Batteries

Fuse

250 ma

A.C. Cable

For A.C. power to Synchronizer

D.C. Cable

Connects to Nagra accessory socket for D.C.
power from and to Nagra

Sync Cable

Connects to Nagra Pilot socket for all Sync
Modes

Ext. Ref. Conn.

Tuchel T 3402

Synchronizer Housing

Substantial aluminum casting